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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/667,978
Filing Date: September 23, 2003
Appellant(s): BESER, NURETTIN BURCAK

Meagan S. Walling
Reg. No. 60,112
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief August 13, 2008 appealing from the Office action mailed March 13, 2008.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,553,568	Fijolek	8-2003
6,912,221	Zadikian	6-2005

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1,3-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Fijolek et al. (US 6,553,568), herein referred to as Fijolek.

As per claim 1, Fijolek discloses a method of allocating upstream resources to a plurality of cable modems, comprising:

grouping the plurality of cable modems into a plurality of groups based on quality of service requirements of each of the cable modems (see column 22, Table 17, describing the range of IP addresses according to service agreement groups, where the groups are based on quality of service requirements (e.g. Biz Gold, Biz Silver, Gold, Silver, and Premium) and then refer to column 23, lines 17-21, showing how a CM (i.e. cable modem) is assigned to one of the service level groups above);

ordering allocation of said upstream resources to each of the plurality of cable modems based on the group to which each of the cable modems belongs (see column 23, line 64 – column 24, line 20, describing ordering allocation of upstream resources by assigning a certain maximum upstream rate limit according to the group (e.g. Biz Gold gets 512K upstream versus Premium that only gets 40K upstream));

allocating said upstream resources to each of the cable modems based on the ordering (see column 24, lines 21-28, where the service level agreement groups are enforced on the cable modems).

As per claim 3, Fijolek further discloses assigning initialization channels of the upstream resources to each of the plurality of cable modems based on the grouping of the cable modems (see column 23, lines 44-56).

As per claim 4, Fijolek further discloses assigning registration channels of the upstream resources to each of the plurality of cable modems based on the grouping of the cable modems (see column 24, line 59 – column 25, line 3).

As per claim 5, Fijolek further discloses that a first group of the plurality of groups comprises message transferring agents (see column 24, lines 39-41).

Claims 6-31,34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fijolek et al. (US 6,553,568), herein referred to as Fijolek, and further in view of Zadikian et al. (US 6,912,221), herein referred to as Zadikian.

As per claims 6,13,30, although the system disclosed by Fijolek shows substantial features of the claimed invention (discussed above), it fails to disclose designating a first group of the plurality of groups as requiring said allocation of the upstream resources before other groups of the plurality of groups.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Fijolek, as evidenced by Zadikian.

In an analogous art, Zadikian discloses a need for allocating upstream resources in a descending order to prioritize a restoration sequence from highest priority to lowest priority (see column 6, lines 15-22). In considering the upstream resources it is obvious that the upstream is used since resources are temporarily stopped, the devices will try to log on (i.e. request service). That is, it will appear as an upstream to the device that is requesting service.

Given the teaching of Zadikian, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Fijolek's teaching of QoS groups by employing a prioritized order of allocation of upstream resources based on QoS, such as disclosed by Zadikian, in order to prevent all bandwidth resources from being used during restoration of a connection. Although Zadikian does not specifically mention a prioritization of groups, it would have been obvious to one of ordinary skill in the art that since Fijolek's system uses groups based on QoS, the highest priority group would be able to restore their connection first followed by the next QoS group.

As per claims 7,14,31, Zadikian further discloses designating a second group of the plurality of groups as being said allocated upstream resources subsequent to the first group (see column 6, lines 15-22, where it is implied that once the high priority connections are restored first, the next priority connections will be restored).

As per claims 8,34, Fijolek in view of Zadikian disclose a cable modem termination system (CMTS), comprising:

- a memory configured to store instructions (see Fijolek column 24, lines 33-36, implying a memory to store instructions for receiving requests for service level agreements); and

- a processing unit configured to execute the instructions in the memory to:

 - group a plurality of cable modems (CMs) into a plurality of groups based on quality of service requirements of each of the cable modems (see Fijolek column 24, lines 1-20), and

determine an order for allocating upstream resources to each of the plurality of CMs based on the group to which each of the CMs belongs (see Zadikian column 6, lines 15-22, and discussion of claim 6 above).

In considering a re-boot of the CMTS, Fijolek discloses that the CMTS can be booted (see column 12, lines 29-35, describing a boot record). It would have been obvious to one of ordinary skill in the art to realize that a CMTS can be re-booted if there exists a boot record. Since the CMTS provides the CM with connections based on service level agreements (see above), and Zadikian discloses restoring a connection based on priority levels (see above), it would be obvious that when a CMTS is booted, a sequence of restoring connections will be started based on the priority of the service level groups.

As per claims 17,19,22,24,27,28, Fijolek further discloses memory to group the plurality of CMs into the plurality of groups based on quality of service requirements of the CMs (see column 22, Table 17, describing the range of IP addresses according to service agreement groups, where the groups are (e.g. Biz Gold, Biz Silver, Gold, Silver, and Premium) and then refer to column 23, lines 17-21, showing how a CM (i.e. cable modem) is assigned to one of the service level groups above).

As per claim 10, Fijolek further discloses memory to allocate initialization channels of the upstream resources to each of the plurality of CMs based on the grouping of the plurality of CMs (see column 23, lines 44-56).

As per claim 11, Fijolek further discloses memory to allocate registration channels of the upstream resources to each of the plurality of CMs based on the grouping of the CMs (see column 24, line 59 – column 25, line 3).

As per claims 12,29, Fijolek further discloses that the groups comprise message transferring agents (see column 24, lines 39-41).

As per claims 15,20,25, Fijolek in view of Zadikian disclose [claim 20] a memory to store instructions (see Fijolek column 24, lines 33-36, implying a memory to store instructions for receiving requests for service level agreements);

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receiving upstream resource requests from a plurality of cable modems, each of the resource requests comprising an address associated with a cable modem of the plurality of cable modems (see Fijolek column 24, lines 33-38);

determining an order that the upstream resources are to be assigned to each of the plurality of cable modems based on the address of each of the resource requests (see Zadikian column 6, lines 15-22, and discussion of claim 6 above);

allocating the upstream resources based on the determined order (see column 24, lines 21-28, where the service level agreement groups are enforced on the cable modems). Given the teaching of Zadikian, the enforcement and allocation would be based on the determined order of priority.

As per claim 16,21,26, Fijolek discloses that the address comprises a medium access control (MAC) address (see column 24, lines 33-38).

As per claims 18,23, Fijolek discloses allocating the upstream resources to each of the plurality of cable modems based on a group of the plurality of groups to which each of said cable modems belongs (see discussion of claim 6 above).

(10) Response to Argument

A) Appellant contends that Fijolek does not disclose ordering allocation of upstream resources to each of a plurality of cable modems based on a group to which each of the cable modems belongs, and allocating upstream resources to each of the cable modems based on the ordering.

In considering A), the Examiner respectfully disagrees. The term allocating is considered distributing according to a plan. Given the general definition of allocating, Fijolek discloses an order of upstream resources that is allocated to each of the groups of cable modems based on quality of service the modem belongs to because the cable modems are grouped into quality of service groups (e.g. Biz Gold, Biz Silver, Gold, etc.). These groups each have their own quality of service associated with them. For instance Biz Gold gets allocated 512K upstream versus Premium that only gets 40K upstream (see column 23, line 64 – column 24, line 20). It is clear that the Biz Gold has a higher order for allocated upstream resources because it is allocated a higher upstream speed. Fijolek further discloses allocating

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the upstream resources to each of the cable modems based on the ordering because the quality of service is enforced on the cable modems. That is, the quality of service is allocated to the modem based on which group it is in. For example, the Biz Gold group will be allocated the higher order of quality of service than the Premium. The Examiner believes that assigning an order of upstream resources to limit the maximum rate for a connection is considered ordering an allocation of resources. The Premium group can never receive an upstream speed of 512k since it is not allocated a speed of 512k like the Biz Gold. The order is allocated according to the Plan (i.e. Biz Gold, Biz Silver, Gold, Silver and Premium). Although it is possible that the Biz Gold member may not need all 512 of the rate, it is still allocated that amount. That is, it can get a speed of 512k where as the Premium member can't.

B) Appellant contends that Fijolek does not disclose assigning initialization channels of the upstream resources to each of the plurality of cable modems based on the groupings of the plurality of cable modems.

In considering B), the Examiner respectfully disagrees. Appellants specification on paragraph 37 does not provide any special meaning to what a channel is so the Examiner interprets the channel as the specific, prescribed or official course for means of communication. In this case, Fijolek discloses that a statically reserved network address is received on the network device in response to the dynamic request for a network address and then a configuration file is used to initialize a network device with configuration parameters and a desired service level agreement (see column 23, lines 44-56). Since the network address provides a specific course for communication i.e. data is addressed and sent specifically to certain network addresses, the Examiner believes that the channel can be interpreted as the network address. Furthermore, the addresses are based on the groupings of the plurality of cable modems because the network address is part of a pool that is assigned to a group according to a service level agreement.

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C) Appellant contends that Fijolek does not disclose assigning registration channels of the upstream resources to each of the plurality of cable modems based on the groupings of the cable modems.

In considering C), the Examiner respectfully disagrees. Fijolek discloses assigning a registration channel in the form of assigning a registered i.e. specific IP address from a pool of network addresses associated with the requested service level agreement that will be used to initialize the cable modems.

D) Appellant contends that Fijolek does not disclose a group that comprises message transferring agents.

In considering D), the Examiner respectfully disagrees. Fijolek discloses message transferring agents in the form of a TSI message. The first group is considered the CM and CPE that request a service level agreement using the TSI message to transfer a MAC address to identify the network device.

E) Appellant contends that Zadikian does not disclose determining an order for allocating upstream resources to each of a plurality of CMs based on a group to which each of the CMs belongs.

In considering E), the Examiner respectfully disagrees. Although Zadikian discloses restoring failed connections, the method of restoring the connection is still in compliance with claimed limitation. That is, there is a specific order in which the connections are restored i.e. the highest QoS connections are restored first followed by in descending order by those with lower QoS. It is a necessary step that restoring connections also restore the upstream and downstream resources as well in order to have data flow along the connection. Furthermore, Fijolek discloses the necessary upstream resources. Zadikian was merely used to teach the determination of a particular order in which those upstream resources should be allocated.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Philip J Chea/

Examiner, Art Unit 2453

10/23/08

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